

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

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North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-49588-1

Client Project/Site: EMD Monthly

For:

TRC Environmental Corp-Payne Firm

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Cincinnati, Ohio 45242

Attn: Curt Kugler

Patrick O'Meara

Authorized for release by:

4/30/2015 2:26:20 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Definitions/Glossary

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

#### Abbreviation These commonly used abbreviations may or may not be present in this report.

|                |   |
|----------------|---|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| CFL            | Contains Free Liquid  |
| CNF            | Contains no Free Liquid   |
| DER            | Duplicate error ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision level concentration  |
| MDA            | Minimum detectable activity   |
| EDL            | Estimated Detection Limit   |
| MDC            | Minimum detectable concentration  |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| NC             | Not Calculated  |
| ND             | Not detected at the reporting limit (or MDL or EDL if shown)  |
| PQL            | Practical Quantitation Limit  |
| QC             | Quality Control   |
| RER            | Relative error ratio  |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |

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## Case Narrative

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

**Job ID: 240-49588-1**

**Laboratory: TestAmerica Canton**

Narrative

### CASE NARRATIVE

**Client: TRC Environmental Corp-Payne Firm**

**Project: EMD Monthly**

**Report Number: 240-49588-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

#### RECEIPT

The samples were received on 4/21/2015 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

#### VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples EFFLUENT/042015 (240-49588-1) and TB01/042015 (240-49588-2) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/23/2015.

Methylene Chloride was detected in method blank MB 240-177594/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Sample EFFLUENT/042015 (240-49588-1) was analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 04/29/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Method Summary

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

| Method    | Method Description                 | Protocol | Laboratory |
|-----------|------------------------------------|----------|------------|
| 8260B     | Volatile Organic Compounds (GC/MS) | SW846    | TAL CAN    |
| 8260B SIM | Volatile Organic Compounds (GC/MS) | SW846    | TAL CAN    |

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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## Sample Summary

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 240-49588-1   | EFFLUENT/042015  | Water  | 04/20/15 09:00 | 04/21/15 08:45 |
| 240-49588-2   | TB01/042015      | Water  | 04/20/15 00:00 | 04/21/15 08:45 |

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## Detection Summary

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

**Client Sample ID: EFFLUENT/042015**

**Lab Sample ID: 240-49588-1**

| Analyte                   | Result | Qualifier | RL  | MDL  | Unit | Dil Fac | D | Method    | Prep Type |
|---------------------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane               | 5.2    |           | 2.0 | 0.44 | ug/L | 1       |   | 8260B SIM | Total/NA  |
| Acetone                   | 3.6    | J         | 10  | 0.94 | ug/L | 1       |   | 8260B     | Total/NA  |
| Chloroform                | 3.9    |           | 1.0 | 0.25 | ug/L | 1       |   | 8260B     | Total/NA  |
| 1,1-Dichloroethane        | 2.7    |           | 1.0 | 0.30 | ug/L | 1       |   | 8260B     | Total/NA  |
| 1,2-Dichloroethane        | 17     |           | 1.0 | 0.23 | ug/L | 1       |   | 8260B     | Total/NA  |
| 1,1,2,2-Tetrachloroethane | 0.88   | J         | 1.0 | 0.22 | ug/L | 1       |   | 8260B     | Total/NA  |
| 1,1,1-Trichloroethane     | 2.5    |           | 1.0 | 0.44 | ug/L | 1       |   | 8260B     | Total/NA  |
| 1,1,2-Trichloroethane     | 0.25   | J         | 1.0 | 0.24 | ug/L | 1       |   | 8260B     | Total/NA  |

**Client Sample ID: TB01/042015**

**Lab Sample ID: 240-49588-2**

No Detections.

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

**Client Sample ID: EFFLUENT/042015**

**Lab Sample ID: 240-49588-1**

Matrix: Water

Date Collected: 04/20/15 09:00

Date Received: 04/21/15 08:45

## Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane                  | 5.2       |           | 2.0      | 0.44 | ug/L |   |          | 04/29/15 16:17 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 110       |           | 74 - 120 |      |      |   |          | 04/29/15 16:17 | 1       |

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                          | Result      | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone                          | 3.6         | J         | 10  | 0.94 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Acetonitrile                     | ND          |           | 20  | 4.0  | ug/L |   |          | 04/23/15 12:38 | 1       |
| Acrolein                         | ND          |           | 20  | 4.5  | ug/L |   |          | 04/23/15 12:38 | 1       |
| Acrylonitrile                    | ND          |           | 20  | 6.3  | ug/L |   |          | 04/23/15 12:38 | 1       |
| Benzene                          | ND          |           | 1.0 | 0.35 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Bromodichloromethane             | ND          |           | 1.0 | 0.29 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Bromoform                        | ND          |           | 1.0 | 0.56 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Bromomethane                     | ND          |           | 1.0 | 0.44 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 2-Butanone                       | ND          |           | 10  | 0.53 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Carbon disulfide                 | ND          |           | 1.0 | 0.38 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Carbon tetrachloride             | ND          |           | 1.0 | 0.43 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Chlorobenzene                    | ND          |           | 1.0 | 0.25 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Chloroethane                     | ND          |           | 1.0 | 0.32 | ug/L |   |          | 04/23/15 12:38 | 1       |
| <b>Chloroform</b>                | <b>3.9</b>  |           | 1.0 | 0.25 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Chloromethane                    | ND          |           | 1.0 | 0.44 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Chloroprene                      | ND          |           | 2.0 | 0.26 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 3-Chloro-1-propene               | ND          |           | 2.0 | 0.84 | ug/L |   |          | 04/23/15 12:38 | 1       |
| cis-1,2-Dichloroethene           | ND          |           | 1.0 | 0.26 | ug/L |   |          | 04/23/15 12:38 | 1       |
| cis-1,3-Dichloropropene          | ND          |           | 1.0 | 0.46 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Dibromochloromethane             | ND          |           | 1.0 | 0.43 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 1,2-Dibromo-3-Chloropropane      | ND          |           | 2.0 | 0.82 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Dibromomethane                   | ND          |           | 1.0 | 0.42 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Dichlorodifluoromethane          | ND          |           | 1.0 | 0.32 | ug/L |   |          | 04/23/15 12:38 | 1       |
| <b>1,1-Dichloroethane</b>        | <b>2.7</b>  |           | 1.0 | 0.30 | ug/L |   |          | 04/23/15 12:38 | 1       |
| <b>1,2-Dichloroethane</b>        | <b>17</b>   |           | 1.0 | 0.23 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 1,1-Dichloroethene               | ND          |           | 1.0 | 0.45 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 1,2-Dichloroethene, Total        | ND          |           | 2.0 | 0.20 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 1,2-Dichloropropane              | ND          |           | 1.0 | 0.25 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 1,4-Dioxane                      | ND          |           | 50  | 40   | ug/L |   |          | 04/23/15 12:38 | 1       |
| Ethylbenzene                     | ND          |           | 1.0 | 0.25 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Ethylene Dibromide               | ND          |           | 1.0 | 0.32 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Ethyl methacrylate               | ND          |           | 1.0 | 0.44 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 2-Hexanone                       | ND          |           | 10  | 0.48 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Iodomethane                      | ND          |           | 1.0 | 0.42 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Isobutanol                       | ND          |           | 50  | 12   | ug/L |   |          | 04/23/15 12:38 | 1       |
| Methacrylonitrile                | ND          |           | 10  | 2.5  | ug/L |   |          | 04/23/15 12:38 | 1       |
| Methylene Chloride               | ND          |           | 1.0 | 0.33 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Methyl methacrylate              | ND          |           | 2.0 | 0.28 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 4-Methyl-2-pentanone (MIBK)      | ND          |           | 10  | 0.99 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Propionitrile                    | ND          |           | 10  | 2.0  | ug/L |   |          | 04/23/15 12:38 | 1       |
| Styrene                          | ND          |           | 1.0 | 0.45 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 1,1,1,2-Tetrachloroethane        | ND          |           | 1.0 | 0.28 | ug/L |   |          | 04/23/15 12:38 | 1       |
| <b>1,1,2,2-Tetrachloroethane</b> | <b>0.88</b> | <b>J</b>  | 1.0 | 0.22 | ug/L |   |          | 04/23/15 12:38 | 1       |

TestAmerica Canton

# Client Sample Results

Client: TRC Environmental Corp-Payne Firm  
 Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

**Client Sample ID: EFFLUENT/042015**  
**Date Collected: 04/20/15 09:00**  
**Date Received: 04/21/15 08:45**

**Lab Sample ID: 240-49588-1**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                      | Result        | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|---------------|-----------|----------|------|------|---|----------|----------------|---------|
| Tetrachloroethene            | ND            |           | 1.0      | 0.31 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Toluene                      | ND            |           | 1.0      | 0.23 | ug/L |   |          | 04/23/15 12:38 | 1       |
| trans-1,4-Dichloro-2-butene  | ND            |           | 1.0      | 0.55 | ug/L |   |          | 04/23/15 12:38 | 1       |
| trans-1,2-Dichloroethene     | ND            |           | 1.0      | 0.30 | ug/L |   |          | 04/23/15 12:38 | 1       |
| trans-1,3-Dichloropropene    | ND            |           | 1.0      | 0.56 | ug/L |   |          | 04/23/15 12:38 | 1       |
| <b>1,1,1-Trichloroethane</b> | <b>2.5</b>    |           | 1.0      | 0.44 | ug/L |   |          | 04/23/15 12:38 | 1       |
| <b>1,1,2-Trichloroethane</b> | <b>0.25 J</b> |           | 1.0      | 0.24 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Trichloroethene              | ND            |           | 1.0      | 0.22 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Trichlorofluoromethane       | ND            |           | 1.0      | 0.49 | ug/L |   |          | 04/23/15 12:38 | 1       |
| 1,2,3-Trichloropropane       | ND            |           | 1.0      | 0.44 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Vinyl acetate                | ND            |           | 2.0      | 0.41 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Vinyl chloride               | ND            |           | 1.0      | 0.29 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Xylenes, Total               | ND            |           | 2.0      | 0.52 | ug/L |   |          | 04/23/15 12:38 | 1       |
| Surrogate                    | %Recovery     | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr)  | 93            |           | 66 - 120 |      |      |   |          | 04/23/15 12:38 | 1       |
| Dibromofluoromethane (Surr)  | 99            |           | 75 - 121 |      |      |   |          | 04/23/15 12:38 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 90            |           | 63 - 129 |      |      |   |          | 04/23/15 12:38 | 1       |
| Toluene-d8 (Surr)            | 95            |           | 74 - 120 |      |      |   |          | 04/23/15 12:38 | 1       |

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# Client Sample Results

Client: TRC Environmental Corp-Payne Firm  
 Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

**Client Sample ID: TB01/042015**

**Lab Sample ID: 240-49588-2**

**Matrix: Water**

**Date Collected: 04/20/15 00:00**

**Date Received: 04/21/15 08:45**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone                     | ND     |           | 10  | 0.94 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Acetonitrile                | ND     |           | 20  | 4.0  | ug/L |   |          | 04/23/15 13:01 | 1       |
| Acrolein                    | ND     |           | 20  | 4.5  | ug/L |   |          | 04/23/15 13:01 | 1       |
| Acrylonitrile               | ND     |           | 20  | 6.3  | ug/L |   |          | 04/23/15 13:01 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.35 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Bromodichloromethane        | ND     |           | 1.0 | 0.29 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Bromoform                   | ND     |           | 1.0 | 0.56 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Bromomethane                | ND     |           | 1.0 | 0.44 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.53 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Carbon disulfide            | ND     |           | 1.0 | 0.38 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.43 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.25 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Chloroethane                | ND     |           | 1.0 | 0.32 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.25 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Chloromethane               | ND     |           | 1.0 | 0.44 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Chloroprene                 | ND     |           | 2.0 | 0.26 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 3-Chloro-1-propene          | ND     |           | 2.0 | 0.84 | ug/L |   |          | 04/23/15 13:01 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.26 | ug/L |   |          | 04/23/15 13:01 | 1       |
| cis-1,3-Dichloropropene     | ND     |           | 1.0 | 0.46 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Dibromochloromethane        | ND     |           | 1.0 | 0.43 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 2.0 | 0.82 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Dibromomethane              | ND     |           | 1.0 | 0.42 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Dichlorodifluoromethane     | ND     |           | 1.0 | 0.32 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.23 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.45 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,2-Dichloroethene, Total   | ND     |           | 2.0 | 0.20 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,2-Dichloropropane         | ND     |           | 1.0 | 0.25 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,4-Dioxane                 | ND     |           | 50  | 40   | ug/L |   |          | 04/23/15 13:01 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.25 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Ethylene Dibromide          | ND     |           | 1.0 | 0.32 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Ethyl methacrylate          | ND     |           | 1.0 | 0.44 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 2-Hexanone                  | ND     |           | 10  | 0.48 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Iodomethane                 | ND     |           | 1.0 | 0.42 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Isobutanol                  | ND     |           | 50  | 12   | ug/L |   |          | 04/23/15 13:01 | 1       |
| Methacrylonitrile           | ND     |           | 10  | 2.5  | ug/L |   |          | 04/23/15 13:01 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.33 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Methyl methacrylate         | ND     |           | 2.0 | 0.28 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 4-Methyl-2-pentanone (MIBK) | ND     |           | 10  | 0.99 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Propionitrile               | ND     |           | 10  | 2.0  | ug/L |   |          | 04/23/15 13:01 | 1       |
| Styrene                     | ND     |           | 1.0 | 0.45 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,1,1,2-Tetrachloroethane   | ND     |           | 1.0 | 0.28 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,1,2,2-Tetrachloroethane   | ND     |           | 1.0 | 0.22 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.31 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.23 | ug/L |   |          | 04/23/15 13:01 | 1       |
| trans-1,4-Dichloro-2-butene | ND     |           | 1.0 | 0.55 | ug/L |   |          | 04/23/15 13:01 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 1.0 | 0.30 | ug/L |   |          | 04/23/15 13:01 | 1       |
| trans-1,3-Dichloropropene   | ND     |           | 1.0 | 0.56 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.44 | ug/L |   |          | 04/23/15 13:01 | 1       |

TestAmerica Canton

# Client Sample Results

Client: TRC Environmental Corp-Payne Firm  
 Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

**Client Sample ID: TB01/042015**  
**Date Collected: 04/20/15 00:00**  
**Date Received: 04/21/15 08:45**

**Lab Sample ID: 240-49588-2**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1,2-Trichloroethane        | ND        |           | 1.0      | 0.24 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Trichloroethene              | ND        |           | 1.0      | 0.22 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Trichlorofluoromethane       | ND        |           | 1.0      | 0.49 | ug/L |   |          | 04/23/15 13:01 | 1       |
| 1,2,3-Trichloropropane       | ND        |           | 1.0      | 0.44 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Vinyl acetate                | ND        |           | 2.0      | 0.41 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Vinyl chloride               | ND        |           | 1.0      | 0.29 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Xylenes, Total               | ND        |           | 2.0      | 0.52 | ug/L |   |          | 04/23/15 13:01 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 66 - 120 |      |      |   |          | 04/23/15 13:01 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 75 - 121 |      |      |   |          | 04/23/15 13:01 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 63 - 129 |      |      |   |          | 04/23/15 13:01 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 74 - 120 |      |      |   |          | 04/23/15 13:01 | 1       |

## Surrogate Summary

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                   |                 |
|------------------|--------------------|--|------------------|-------------------|-----------------|
|                  |                    | BFB<br>(66-120)                                | DBFM<br>(75-121) | 12DCE<br>(63-129) | TOL<br>(74-120) |
| 240-49588-1      | EFFLUENT/042015    | 93   | 99               | 90                | 95              |
| 240-49588-2      | TB01/042015        | 95   | 100              | 97                | 97              |
| LCS 240-177594/4 | Lab Control Sample | 101  | 98               | 104               | 99              |
| MB 240-177594/5  | Method Blank       | 99   | 106              | 99                | 99              |

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

### Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |  |  |  |
|------------------|--------------------|--|--|--|--|
|                  |                    | 12DCE<br>(74-120)                              |  |  |  |
| 240-49588-1      | EFFLUENT/042015    | 110  |  |  |  |
| LCS 240-178495/4 | Lab Control Sample | 113  |  |  |  |
| MB 240-178495/5  | Method Blank       | 109  |  |  |  |

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

TestAmerica Canton

# QC Sample Results

Client: TRC Environmental Corp-Payne Firm  
 Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-177594/5**

**Matrix: Water**

**Analysis Batch: 177594**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

| Analyte                     | MB     | MB        | Dil Fac |     |      |      |   |                |          |
|-----------------------------|--------|-----------|---------|-----|------|------|---|----------------|----------|
|                             | Result | Qualifier |         | RL  | MDL  | Unit | D | Prepared       | Analyzed |
| Acetone                     | ND     |           | 1       | 10  | 0.94 | ug/L |   | 04/23/15 11:32 |          |
| Acetonitrile                | ND     |           | 1       | 20  | 4.0  | ug/L |   | 04/23/15 11:32 |          |
| Acrolein                    | ND     |           | 1       | 20  | 4.5  | ug/L |   | 04/23/15 11:32 |          |
| Acrylonitrile               | ND     |           | 1       | 20  | 6.3  | ug/L |   | 04/23/15 11:32 |          |
| Benzene                     | ND     |           | 1       | 1.0 | 0.35 | ug/L |   | 04/23/15 11:32 |          |
| Bromodichloromethane        | ND     |           | 1       | 1.0 | 0.29 | ug/L |   | 04/23/15 11:32 |          |
| Bromoform                   | ND     |           | 1       | 1.0 | 0.56 | ug/L |   | 04/23/15 11:32 |          |
| Bromomethane                | ND     |           | 1       | 1.0 | 0.44 | ug/L |   | 04/23/15 11:32 |          |
| 2-Butanone                  | ND     |           | 1       | 10  | 0.53 | ug/L |   | 04/23/15 11:32 |          |
| Carbon disulfide            | ND     |           | 1       | 1.0 | 0.38 | ug/L |   | 04/23/15 11:32 |          |
| Carbon tetrachloride        | ND     |           | 1       | 1.0 | 0.43 | ug/L |   | 04/23/15 11:32 |          |
| Chlorobenzene               | ND     |           | 1       | 1.0 | 0.25 | ug/L |   | 04/23/15 11:32 |          |
| Chloroethane                | ND     |           | 1       | 1.0 | 0.32 | ug/L |   | 04/23/15 11:32 |          |
| Chloroform                  | ND     |           | 1       | 1.0 | 0.25 | ug/L |   | 04/23/15 11:32 |          |
| Chloromethane               | ND     |           | 1       | 1.0 | 0.44 | ug/L |   | 04/23/15 11:32 |          |
| Chloroprene                 | ND     |           | 1       | 2.0 | 0.26 | ug/L |   | 04/23/15 11:32 |          |
| 3-Chloro-1-propene          | ND     |           | 1       | 2.0 | 0.84 | ug/L |   | 04/23/15 11:32 |          |
| cis-1,2-Dichloroethene      | ND     |           | 1       | 1.0 | 0.26 | ug/L |   | 04/23/15 11:32 |          |
| cis-1,3-Dichloropropene     | ND     |           | 1       | 1.0 | 0.46 | ug/L |   | 04/23/15 11:32 |          |
| Dibromochloromethane        | ND     |           | 1       | 1.0 | 0.43 | ug/L |   | 04/23/15 11:32 |          |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 1       | 2.0 | 0.82 | ug/L |   | 04/23/15 11:32 |          |
| Dibromomethane              | ND     |           | 1       | 1.0 | 0.42 | ug/L |   | 04/23/15 11:32 |          |
| Dichlorodifluoromethane     | ND     |           | 1       | 1.0 | 0.32 | ug/L |   | 04/23/15 11:32 |          |
| 1,1-Dichloroethane          | ND     |           | 1       | 1.0 | 0.30 | ug/L |   | 04/23/15 11:32 |          |
| 1,2-Dichloroethane          | ND     |           | 1       | 1.0 | 0.23 | ug/L |   | 04/23/15 11:32 |          |
| 1,1-Dichloroethene          | ND     |           | 1       | 1.0 | 0.45 | ug/L |   | 04/23/15 11:32 |          |
| 1,2-Dichloroethene, Total   | ND     |           | 1       | 2.0 | 0.20 | ug/L |   | 04/23/15 11:32 |          |
| 1,2-Dichloropropane         | ND     |           | 1       | 1.0 | 0.25 | ug/L |   | 04/23/15 11:32 |          |
| 1,4-Dioxane                 | ND     |           | 1       | 50  | 40   | ug/L |   | 04/23/15 11:32 |          |
| Ethylbenzene                | ND     |           | 1       | 1.0 | 0.25 | ug/L |   | 04/23/15 11:32 |          |
| Ethylene Dibromide          | ND     |           | 1       | 1.0 | 0.32 | ug/L |   | 04/23/15 11:32 |          |
| Ethyl methacrylate          | ND     |           | 1       | 1.0 | 0.44 | ug/L |   | 04/23/15 11:32 |          |
| 2-Hexanone                  | ND     |           | 1       | 10  | 0.48 | ug/L |   | 04/23/15 11:32 |          |
| Iodomethane                 | ND     |           | 1       | 1.0 | 0.42 | ug/L |   | 04/23/15 11:32 |          |
| Isobutanol                  | ND     |           | 1       | 50  | 12   | ug/L |   | 04/23/15 11:32 |          |
| Methacrylonitrile           | ND     |           | 1       | 10  | 2.5  | ug/L |   | 04/23/15 11:32 |          |
| Methylene Chloride          | 0.334  | J         | 1       | 1.0 | 0.33 | ug/L |   | 04/23/15 11:32 |          |
| Methyl methacrylate         | ND     |           | 1       | 2.0 | 0.28 | ug/L |   | 04/23/15 11:32 |          |
| 4-Methyl-2-pentanone (MIBK) | ND     |           | 1       | 10  | 0.99 | ug/L |   | 04/23/15 11:32 |          |
| Propionitrile               | ND     |           | 1       | 10  | 2.0  | ug/L |   | 04/23/15 11:32 |          |
| Styrene                     | ND     |           | 1       | 1.0 | 0.45 | ug/L |   | 04/23/15 11:32 |          |
| 1,1,1,2-Tetrachloroethane   | ND     |           | 1       | 1.0 | 0.28 | ug/L |   | 04/23/15 11:32 |          |
| 1,1,2,2-Tetrachloroethane   | ND     |           | 1       | 1.0 | 0.22 | ug/L |   | 04/23/15 11:32 |          |
| Tetrachloroethene           | ND     |           | 1       | 1.0 | 0.31 | ug/L |   | 04/23/15 11:32 |          |
| Toluene                     | ND     |           | 1       | 1.0 | 0.23 | ug/L |   | 04/23/15 11:32 |          |
| trans-1,4-Dichloro-2-butene | ND     |           | 1       | 1.0 | 0.55 | ug/L |   | 04/23/15 11:32 |          |
| trans-1,2-Dichloroethene    | ND     |           | 1       | 1.0 | 0.30 | ug/L |   | 04/23/15 11:32 |          |
| trans-1,3-Dichloropropene   | ND     |           | 1       | 1.0 | 0.56 | ug/L |   | 04/23/15 11:32 |          |

TestAmerica Canton

# QC Sample Results

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-177594/5**

**Matrix: Water**

**Analysis Batch: 177594**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

| Analyte                      | MB     | MB        | Result    | Qualifier | RL     | MDL  | Unit | D        | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|-----------|-----------|--------|------|------|----------|----------------|----------------|---------|
|                              | Result | Qualifier |           |           |        |      |      |          |                |                |         |
| 1,1,1-Trichloroethane        | ND     |           |           |           | 1.0    | 0.44 | ug/L |          |                | 04/23/15 11:32 | 1       |
| 1,1,2-Trichloroethane        | ND     |           |           |           | 1.0    | 0.24 | ug/L |          |                | 04/23/15 11:32 | 1       |
| Trichloroethene              | ND     |           |           |           | 1.0    | 0.22 | ug/L |          |                | 04/23/15 11:32 | 1       |
| Trichlorofluoromethane       | ND     |           |           |           | 1.0    | 0.49 | ug/L |          |                | 04/23/15 11:32 | 1       |
| 1,2,3-Trichloropropane       | ND     |           |           |           | 1.0    | 0.44 | ug/L |          |                | 04/23/15 11:32 | 1       |
| Vinyl acetate                | ND     |           |           |           | 2.0    | 0.41 | ug/L |          |                | 04/23/15 11:32 | 1       |
| Vinyl chloride               | ND     |           |           |           | 1.0    | 0.29 | ug/L |          |                | 04/23/15 11:32 | 1       |
| Xylenes, Total               | ND     |           |           |           | 2.0    | 0.52 | ug/L |          |                | 04/23/15 11:32 | 1       |
| Surrogate                    | MB     | MB        | %Recovery | Qualifier | Limits |      |      | Prepared | Analyzed       | Dil Fac        |         |
|                              | Result | Qualifier |           |           |        |      |      |          |                |                |         |
| 4-Bromofluorobenzene (Surr)  | 99     |           | 66 - 120  |           |        |      |      |          | 04/23/15 11:32 | 1              |         |
| Dibromofluoromethane (Surr)  | 106    |           | 75 - 121  |           |        |      |      |          | 04/23/15 11:32 | 1              |         |
| 1,2-Dichloroethane-d4 (Surr) | 99     |           | 63 - 129  |           |        |      |      |          | 04/23/15 11:32 | 1              |         |
| Toluene-d8 (Surr)            | 99     |           | 74 - 120  |           |        |      |      |          | 04/23/15 11:32 | 1              |         |

**Lab Sample ID: LCS 240-177594/4**

**Matrix: Water**

**Analysis Batch: 177594**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

| Analyte                     | Spike<br>Added | LCs    | LCS       | Unit | D | %Rec | Limits   |
|-----------------------------|----------------|--------|-----------|------|---|------|----------|
|                             |                | Result | Qualifier |      |   |      |          |
| Acetone                     | 20.0           | 16.4   |           | ug/L |   | 82   | 43 - 136 |
| Acrolein                    | 50.0           | 52.5   |           | ug/L |   | 105  | 51 - 170 |
| Acrylonitrile               | 100            | 95.6   |           | ug/L |   | 96   | 66 - 132 |
| Benzene                     | 10.0           | 9.28   |           | ug/L |   | 93   | 80 - 120 |
| Bromodichloromethane        | 10.0           | 9.11   |           | ug/L |   | 91   | 72 - 121 |
| Bromoform                   | 10.0           | 10.2   |           | ug/L |   | 102  | 40 - 131 |
| Bromomethane                | 10.0           | 8.44   |           | ug/L |   | 84   | 11 - 185 |
| 2-Butanone                  | 20.0           | 17.1   |           | ug/L |   | 86   | 60 - 126 |
| Carbon disulfide            | 10.0           | 11.5   |           | ug/L |   | 115  | 62 - 142 |
| Carbon tetrachloride        | 10.0           | 10.6   |           | ug/L |   | 106  | 66 - 128 |
| Chlorobenzene               | 10.0           | 9.06   |           | ug/L |   | 91   | 80 - 120 |
| Chloroethane                | 10.0           | 8.57   |           | ug/L |   | 86   | 25 - 153 |
| Chloroform                  | 10.0           | 9.16   |           | ug/L |   | 92   | 79 - 120 |
| Chloromethane               | 10.0           | 8.81   |           | ug/L |   | 88   | 44 - 126 |
| 3-Chloro-1-propene          | 10.0           | 10.1   |           | ug/L |   | 101  | 40 - 160 |
| cis-1,2-Dichloroethene      | 10.0           | 9.39   |           | ug/L |   | 94   | 80 - 120 |
| cis-1,3-Dichloropropene     | 10.0           | 9.91   |           | ug/L |   | 99   | 61 - 120 |
| Dibromochloromethane        | 10.0           | 9.82   |           | ug/L |   | 98   | 64 - 120 |
| 1,2-Dibromo-3-Chloropropane | 10.0           | 10.5   |           | ug/L |   | 105  | 42 - 136 |
| Dibromomethane              | 10.0           | 9.49   |           | ug/L |   | 95   | 80 - 120 |
| Dichlorodifluoromethane     | 10.0           | 9.21   |           | ug/L |   | 92   | 19 - 129 |
| 1,1-Dichloroethane          | 10.0           | 9.76   |           | ug/L |   | 98   | 80 - 120 |
| 1,2-Dichloroethane          | 10.0           | 9.37   |           | ug/L |   | 94   | 71 - 127 |
| 1,1-Dichloroethene          | 10.0           | 10.6   |           | ug/L |   | 106  | 78 - 131 |
| 1,2-Dichloroethene, Total   | 20.0           | 19.3   |           | ug/L |   | 97   | 80 - 120 |
| 1,2-Dichloropropene         | 10.0           | 9.08   |           | ug/L |   | 91   | 80 - 120 |
| 1,4-Dioxane                 | 200            | 216    |           | ug/L |   | 108  | 50 - 150 |
| Ethylbenzene                | 10.0           | 9.29   |           | ug/L |   | 93   | 80 - 120 |

TestAmerica Canton

# QC Sample Results

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-177594/4**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

**Analysis Batch: 177594**

| Analyte                     | Spike | LCS    |           | Unit | D | %Rec | Limits   |
|-----------------------------|-------|--------|-----------|------|---|------|----------|
|                             | Added | Result | Qualifier |      |   |      |          |
| Ethylene Dibromide          | 10.0  | 9.74   |           | ug/L |   | 97   | 79 - 120 |
| Ethyl methacrylate          | 10.0  | 11.0   |           | ug/L |   | 110  | 40 - 160 |
| 2-Hexanone                  | 20.0  | 19.7   |           | ug/L |   | 99   | 55 - 133 |
| Iodomethane                 | 10.0  | 11.5   |           | ug/L |   | 115  | 72 - 141 |
| Isobutanol                  | 250   | 217    |           | ug/L |   | 87   | 40 - 160 |
| Methylene Chloride          | 10.0  | 9.99   |           | ug/L |   | 100  | 66 - 131 |
| 4-Methyl-2-pentanone (MIBK) | 20.0  | 19.3   |           | ug/L |   | 96   | 63 - 128 |
| m-Xylene & p-Xylene         | 10.0  | 9.25   |           | ug/L |   | 92   | 80 - 120 |
| o-Xylene                    | 10.0  | 9.27   |           | ug/L |   | 93   | 80 - 120 |
| Styrene                     | 10.0  | 9.65   |           | ug/L |   | 96   | 79 - 120 |
| 1,1,1,2-Tetrachloroethane   | 10.0  | 9.06   |           | ug/L |   | 91   | 72 - 120 |
| 1,1,2,2-Tetrachloroethane   | 10.0  | 9.51   |           | ug/L |   | 95   | 68 - 120 |
| Tetrachloroethene           | 10.0  | 10.1   |           | ug/L |   | 101  | 79 - 120 |
| Toluene                     | 10.0  | 9.29   |           | ug/L |   | 93   | 80 - 120 |
| trans-1,4-Dichloro-2-butene | 10.0  | 10.1   |           | ug/L |   | 101  | 10 - 199 |
| trans-1,2-Dichloroethene    | 10.0  | 9.95   |           | ug/L |   | 99   | 80 - 120 |
| trans-1,3-Dichloropropene   | 10.0  | 10.5   |           | ug/L |   | 105  | 58 - 120 |
| 1,1,1-Trichloroethane       | 10.0  | 9.63   |           | ug/L |   | 96   | 74 - 120 |
| 1,1,2-Trichloroethane       | 10.0  | 8.87   |           | ug/L |   | 89   | 80 - 120 |
| Trichloroethene             | 10.0  | 9.81   |           | ug/L |   | 98   | 76 - 120 |
| Trichlorofluoromethane      | 10.0  | 9.51   |           | ug/L |   | 95   | 49 - 157 |
| 1,2,3-Trichloropropane      | 10.0  | 9.33   |           | ug/L |   | 93   | 73 - 129 |
| Vinyl acetate               | 10.0  | 13.5   |           | ug/L |   | 135  | 46 - 161 |
| Vinyl chloride              | 10.0  | 8.49   |           | ug/L |   | 85   | 53 - 127 |
| Xylenes, Total              | 20.0  | 18.5   |           | ug/L |   | 93   | 80 - 120 |

| Surrogate                    | LCS       | LCS       | Limits   |
|------------------------------|-----------|-----------|----------|
|                              | %Recovery | Qualifier |          |
| 4-Bromofluorobenzene (Surr)  | 101       |           | 66 - 120 |
| Dibromofluoromethane (Surr)  | 98        |           | 75 - 121 |
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 63 - 129 |
| Toluene-d8 (Surr)            | 99        |           | 74 - 120 |

## Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-178495/5**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

**Analysis Batch: 178495**

| Analyte                      | MB        | MB        | RL       | MDL      | Unit     | D       | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------|---------|----------|----------------|---------|
|                              | Result    | Qualifier |          |          |          |         |          |                |         |
| 1,4-Dioxane                  | ND        |           | 2.0      | 0.44     | ug/L     |         |          | 04/29/15 13:05 | 1       |
| Surrogate                    | MB        | MB        | Limits   | Prepared | Analyzed | Dil Fac | Prepared | Analyzed       | Dil Fac |
|                              | %Recovery | Qualifier |          |          |          |         |          |                |         |
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 74 - 120 |          |          |         |          | 04/29/15 13:05 | 1       |

TestAmerica Canton

## QC Sample Results

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

### Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-178495/4

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 178495

| Analyte                     | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit     | D | %Rec. | %Rec.    |
|-----------------------------|------------------|------------------|------------------|----------|---|-------|----------|
| 1,4-Dioxane                 | 10.0             | 8.74             |                  | ug/L     |   | 87    | 59 - 124 |
| <hr/>                       |                  |                  |                  |          |   |       |          |
| Surrogate                   | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |          |   |       |          |
| 1,2-Dichloroethane-d4 (Sur) | 113              |                  |                  | 74 - 120 |   |       |          |

# QC Association Summary

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

## GC/MS VOA

### Analysis Batch: 177594

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 240-49588-1      | EFFLUENT/042015    | Total/NA  | Water  | 8260B  |            |
| 240-49588-2      | TB01/042015        | Total/NA  | Water  | 8260B  |            |
| LCS 240-177594/4 | Lab Control Sample | Total/NA  | Water  | 8260B  |            |
| MB 240-177594/5  | Method Blank       | Total/NA  | Water  | 8260B  |            |

### Analysis Batch: 178495

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|------------------|--------------------|-----------|--------|-----------|------------|
| 240-49588-1      | EFFLUENT/042015    | Total/NA  | Water  | 8260B SIM |            |
| LCS 240-178495/4 | Lab Control Sample | Total/NA  | Water  | 8260B SIM |            |
| MB 240-178495/5  | Method Blank       | Total/NA  | Water  | 8260B SIM |            |

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# Lab Chronicle

Client: TRC Environmental Corp-Payne Firm  
Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

**Client Sample ID: EFFLUENT/042015**

**Lab Sample ID: 240-49588-1**

Matrix: Water

Date Collected: 04/20/15 09:00

Date Received: 04/21/15 08:45

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B        |     | 1               | 177594       | 04/23/15 12:38       | LEE     | TAL CAN |
| Total/NA  | Analysis   | 8260B SIM    |     | 1               | 178495       | 04/29/15 16:17       | SAM     | TAL CAN |

**Client Sample ID: TB01/042015**

**Lab Sample ID: 240-49588-2**

Matrix: Water

Date Collected: 04/20/15 00:00

Date Received: 04/21/15 08:45

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B        |     | 1               | 177594       | 04/23/15 13:01       | LEE     | TAL CAN |

## Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

## Certification Summary

Client: TRC Environmental Corp-Payne Firm  
 Project/Site: EMD Monthly

TestAmerica Job ID: 240-49588-1

### Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority         | Program       | EPA Region | Certification ID | Expiration Date |
|-------------------|---------------|------------|------------------|-----------------|
| California        | NELAP         | 9          | 01144CA          | 06-30-14 *      |
| California        | State Program | 9          | 2927             | 04-30-15 *      |
| Connecticut       | State Program | 1          | PH-0590          | 12-31-15        |
| Florida           | NELAP         | 4          | E87225           | 06-30-15 *      |
| Georgia           | State Program | 4          | N/A              | 06-30-15 *      |
| Illinois          | NELAP         | 5          | 200004           | 07-31-15        |
| Kansas            | NELAP         | 7          | E-10336          | 04-30-15 *      |
| Kentucky (UST)    | State Program | 4          | 58               | 06-30-15 *      |
| Kentucky (WW)     | State Program | 4          | 98016            | 12-31-15        |
| L-A-B             | DoD ELAP      |            | L2315            | 07-18-16        |
| Minnesota         | NELAP         | 5          | 039-999-348      | 12-31-15        |
| Nevada            | State Program | 9          | OH-000482008A    | 07-31-15        |
| New Jersey        | NELAP         | 2          | OH001            | 06-30-15 *      |
| New York          | NELAP         | 2          | 10975            | 03-31-16 *      |
| Ohio VAP          | State Program | 5          | CL0024           | 10-31-15        |
| Oregon            | NELAP         | 10         | 4062             | 02-23-16        |
| Pennsylvania      | NELAP         | 3          | 68-00340         | 08-31-15        |
| Texas             | NELAP         | 6          |                  | 08-31-15        |
| USDA              | Federal       |            | P330-13-00319    | 11-26-16        |
| Virginia          | NELAP         | 3          | 460175           | 09-14-15        |
| Washington        | State Program | 10         | C971             | 01-12-16        |
| West Virginia DEP | State Program | 3          | 210              | 12-31-15        |
| Wisconsin         | State Program | 5          | 999518190        | 08-31-15        |

\* Certification renewal pending - certification considered valid.

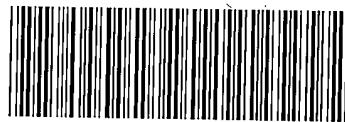
TestAmerica Canton

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-49588 Chain of Custody

## TestAmerica Canton

4101 Shuffel Street NW  
North Canton, OH 44720  
Phone (330) 497-9396 Fax (330) 497-0772

## Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

|  |                                      |   |   |   |
|--|--------------------------------------|---|---|---|
| <b>Client Information</b>  |                                      | Sample #<br><i>SM</i>                         | Lab P/M:<br>O'Meara, Patrick J                              | Carrier Tracking No(s):<br>COC No:<br>240-27025-11349.1           |
| Client Contact:<br>Steve Rolfs   | Phone:<br><i>1 800-2255</i>          | E-Mail:<br>patrick.o'meara@testamericainc.com | Page: 1 of 1  | Job #:  |
| <b>Analysis Requested</b>  |                                      |   |   |   |
| <p><i>Liquids</i></p> <p>Total Number of Contaminants: _____</p> <p>Perform M/MSD/MSD (yes/no): <input checked="" type="checkbox"/></p> <p>Project #: 24007074</p> <p>SSOW#:</p> <p>Site: <i>01100</i></p> <p>Address:<br/>11231 Cornell Park Drive<br/>City: Cincinnati<br/>State, ZIP: OH, 45242<br/>Phone: 513-489-2255(Tel) 513-489-2533(Fax)<br/>Email: srolfes@trcsolutions.com<br/>Project Name: EMD Monthly O&amp;M</p> <p>PO#: 765975<br/>WO#:</p> <p>Other:</p> <p>Preservation Codes:</p> <p>A - HCl      M - Hexane<br/>B - NaOH      N - None<br/>C - Zn Acetate      O - AsNaO2<br/>D - Nitric Acid      P - Na2OIS<br/>E - NaHSO4      Q - Na2SCo3<br/>F - MeOH      R - Na2SSO3<br/>G - Anchors      S - H2SO4<br/>H - Ascorbic Acid      T - TSP Dodecahydrate<br/>I - Ice      U - Acetone<br/>J - DI Water      V - MCAA<br/>K - EDTA      W - pH 4-5<br/>L - EDA      Z - other (specify) _____</p> <p>Special Instructions/Note:</p>                    |                                      |   |   |   |
| Due Date Requested:<br><i>5/11</i>   | TAT Requested (days):<br><i>5/11</i> | Sample Date<br><i>4/20/15</i>                 | Sample Time<br><i>8:00 AM</i>                               | Matrix (Water, Seawater, Oil/Wastewater, Air/air)<br><i>Water</i> |
| Sample Identification<br><i>Clinical/04/15</i>   | Sample Date<br><i>4/20/15</i>        | Sample Time<br><i>8:00 AM</i>                 | Preservation Code:<br><input checked="" type="checkbox"/> A | Sample Type (C=comp, G=grab) <i>G</i>                             |
| Sample Identification<br><i>TB01/04/2015</i>   | Sample Date<br><i>4/20/15</i>        | Sample Time<br><i>8:00 AM</i>                 | Preservation Code:<br><input checked="" type="checkbox"/> A | Sample Type (C=comp, G=grab) <i>G</i>                             |
|  |                                      |   |   | Performs M/MSD/MSD (yes/no): <input checked="" type="checkbox"/>  |
|  |                                      |   |   | Method of Shipment:<br><i>210501</i>                              |
| <p>Possible Hazard Identification<br/> <input type="checkbox"/> Non-Hazard    <input type="checkbox"/> Flammable    <input type="checkbox"/> Skin Irritant    <input type="checkbox"/> Poison B    <input checked="" type="checkbox"/> Unknown    <input type="checkbox"/> Radiological</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) _____</p> <p>Empty Kit Relinquished by:<br/><i>[Signature]</i></p> <p>Relinquished by:<br/><i>[Signature]</i></p> <p>Relinquished by:<br/><i>[Signature]</i></p> <p>Custody Seal No.: <input type="text"/><br/>Δ Yes    Δ No</p> <p>Special Instructions/QC Requirements:<br/><i>None</i></p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)<br/> <input type="checkbox"/> Return To Client    <input checked="" type="checkbox"/> Disposal By Lab    <input type="checkbox"/> Archive For _____ Months</p> <p>Cooler Temperature(s) °C and Other Remarks:<br/><i>None</i></p> |                                      |   |   |   |

1 2 3 4 5 6 7 8 9 10 11 12 13 14

## Canton Facility

Client TRC

Site Name

Cooler unpacked by:

Kathy Dease

Cooler Received on 4/21/15

Opened on 4/21/15

FedEx: 1<sup>st</sup> Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

## Receipt After-hours: Drop-off Date/Time

## Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

## 1. Cooler temperature upon receipt

IR GUN# A (CF +4.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. 62 °C Corrected Cooler Temp. 67 °C

 See Multiple  
Cooler Form

IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 8 (CF -1.2 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

## 2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No

-Were custody seals on the outside of the cooler(s) signed &amp; dated? Yes No NA

-Were custody seals on the bottle(s)? Yes No

## 3. Shippers' packing slip attached to the cooler(s)? Yes No

## 4. Did custody papers accompany the sample(s)? Yes No

## 5. Were the custody papers relinquished &amp; signed in the appropriate place? Yes No

## 6. Was/were the sampler(s) clearly identified on the COC? Yes No

## 7. Did all bottles arrive in good condition (Unbroken)? Yes No

## 8. Could all bottle labels be reconciled with the COC? Yes No

## 9. Were correct bottle(s) used for the test(s) indicated? Yes No

## 10. Sufficient quantity received to perform indicated analyses? Yes No

## 11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC425511

## 12. Were VOAs on the COC? Yes No

## 13. Were air bubbles &gt;6 mm in any VOA vials? Yes No NA

## 14. Was a trip blank present in the cooler(s)? Trip Blank Lot# Covered Yes No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other  
Concerning \_\_\_\_\_

## 14. CHAIN OF CUSTODY &amp; SAMPLE DISCREPANCIES

Samples processed by: 

## 15. SAMPLE CONDITION

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.

Sample(s) \_\_\_\_\_ were received in a broken container.

Sample(s) \_\_\_\_\_ were received with bubble &gt;6 mm in diameter. (Notify PM)

## 16. SAMPLE PRESERVATION

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.

Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_